

### RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF THE QUALITY ASSURANCE PLAN

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
Global		<i>Changed references from CHG to BNI throughout document.</i>	Contractor reference does not affect requirement	Change in reference reflects current contractor		X
Global		<i>Title change revisions:</i> <i>From Senior Vice Presidents to Project Manager</i> <i>From Senior Vice President (TWTO) to Project Manager</i> <i>Deleted Senior Vice President (TWTID)</i> <i>From WTP QA Director to WTP QA Manager</i> <i>From Engineering Vice President to Engineering Manager or Operations Manager</i> <i>From Design Manager to The Engineering Manager or Deputy Project Manager (unless indicated to delete section)</i> <i>From Environmental, Safety, and Health Director to Environmental, Safety, and Health Manager</i> <i>From ES&amp;H Director to ES&amp;H Manager</i> <i>From Projects Controls Director to Business/Project Controls Manager</i> <i>From Administration Manager to Business/Project Controls Manager (unless indicated to delete section)</i> <i>From Operations Director to Operations Manager</i>	Change in organization titles do not affect requirement	Change in title reflects current contractor organizational structure		X
Title Page	Contract #	<i>Contract Number changed to read: <u>DE-AC27-01RV14136</u></i>	Contract No. does not affect requirement	Reflect current contract number		X
Title Page	All	<i>Revised Authors, Principal Author's and checker's names.</i>	Author identity does not affect requirement	Reflect current author(s)		X
History Sheet	All	<i>Revised for this issue to add reason for Rev 7a.</i>	History does not affect requirement	Provides a chronological listing of changes and the reason for each revision. Required by QARD.		X
Table of Contents	All	<i>Revised to reflect change in page numbers and text.</i>				X
vii Acronyms and Abbreviations	All	<i>Added: BNI Bechtel National Inc.</i> <i><u>ITS Important to Safety</u></i> <i>PDC Project Document Control</i> <i>Deleted CHG from list.</i> <i><u>Deleted OAPIP from list.</u></i> <i><u>Deleted "TWTID, TWTO," from the description for "Project".</u></i> <i><u>Deleted "TWTID" from list.</u></i> <i><u>Deleted "TWTO" from list.</u></i> <i>Revised: QARD — <del>Quality Assurance Requirements and Description for the Civilian Radioactive Waste Management Program,</del></i> <i><del>DOE/RW/0333P</del></i>	Deletion of CHG and the adding of BNI do not affect requirement	Reflects change in contractor		X

**RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF  
THE QUALITY ASSURANCE PLAN**

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
viii Introduction		<p><i>Deleted text and replaced with the following:</i></p> <p>The U.S. Department of Energy, Office of River Protection (DOE) has contracted Bechtel National, Inc. (BNI) to manage the workscope under the contract DE-AC27-01-RV14136, for the completion of design, performance of construction, and commissioning of the Hanford Waste Treatment and Immobilization Plant (WTP).</p> <p>The WTP is comprised of four major elements, pretreatment, Low-Activity Waste (LAW) immobilization, High-Level Waste (HLW) immobilization, and balance of <del>plant</del> facilities.</p> <p>To accomplish this mission and to ensure stakeholders expectations of product quality, BNI has developed this Quality Assurance Program. This program will govern all work performed at the WTP, including work performed by <u>BNI</u> WTP subcontractors.</p> <p>The Quality Assurance Program <u>is supported by the</u> <del>consists of the Quality Assurance Program (QAP) document, the</del> Quality Assurance Manual, and procedures, instructions, and guidance documents that implement the program.</p>	Changes do not affect requirements	Introduction does not implement any requirement		X
ix Project Quality Policy		<p><i>Deleted text and replaced with the following:</i></p> <p>The fundamental aspect of any Quality Assurance (QA) Program is that the individuals performing the work determine the level of quality and are responsible for it being achieved. Though plans, procedures, and instructions are a basic part of any quality program, it should be recognized that people make quality happen. Each individual is responsible for the quality of his/her own work.</p> <p>It is the policy of Bechtel National, Inc. to design, construct, commission, maintain and operate the Waste Treatment and Immobilization Plant (WTP) in such a manner as to ensure the health and safety of the public and the personnel onsite and to protect the environment. One way to accomplish this critical objective is to have an aggressive and comprehensive quality assurance program in place, especially for those activities which can impact safety and quality.</p> <p>As the Project Manager, I have directed the establishment of a formal and comprehensive quality assurance program at the WTP. This program places responsibility and accountability for quality on every person for the WTP. In addition, it emphasizes the creation of an atmosphere in the workplace where reporting and resolution of conditions adverse to quality is encouraged and expected at all levels.</p> <p>The Quality Assurance Program is supported by the associated procedures and instructions which implement the Program requirements. The QA Program identifies those Quality Assurance Standards and Codes that shall be implemented to satisfy the contractual requirements.</p>				

**RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF  
THE QUALITY ASSURANCE PLAN**

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
ix Project Quality Policy (cont'd)		<p>Quality assurance objectives shall not be subordinate to cost or schedule objectives. To ensure compliance with the QA Program requirements, independent verifications and assessments shall be conducted to provide management a measure of the program's effectiveness and adequacy in meeting the requirements of the QA Program and its supporting procedures and instructions.</p> <p>Conflicts involving implementation of the requirements of the Quality Assurance Program shall be resolved by the Quality Assurance Manager or, if deemed necessary, the BNI Corporate QA Manager. In those instances when Bechtel has delegated responsibility for implementation of parts of the Quality Assurance Program to suppliers and/or subcontractors, Bechtel retains responsibility for adequacy of the overall program.</p> <p>_____ R. Naventi Project Manager</p>	Quality Policy statement change does not affect requirement	The BNI Quality Policy statement is equivalent to the CHG Quality Policy statement		X
1 Quality Program 1.1 Objective		<p><i>2<sup>nd</sup> paragraph, <del>deleted</del> the 3<sup>rd</sup> sentence:</i></p> <p>In addition, a Quality Assurance Program Description is developed to incorporate the identified QA requirements and to provide a description of management systems application.</p>	The QA Program Description document reiterated the QAP and has been cancelled	No affect on requirements, they continue to be covered by the QAP or the QA Provisions Document		X
1.2 Purpose and Scope		<p><i>2<sup>nd</sup> paragraph, changed to read as follows:</i></p> <p>The QAP reflects the quality requirements of 10 <i>Code of Federal Regulations</i> (CFR) Part 830.120, <i>Top-Level Radiological, Nuclear, and Process Safety Standards and Principles for Tank Waste Remediation (TWRS) Privatization Contractors</i> (DOE-RL-1996-0006), <i>Guidance for Review of TWRS Privatization Contractor Quality Assurance Program</i>, RL/REG-96-01, RPP-WTP quality policies, and defines their applicability to project work.</p> <p><i>5<sup>th</sup> paragraph, 2<sup>nd</sup> sentence, changed is to are.</i></p> <p><i>5<sup>th</sup> paragraph, 3<sup>rd</sup> sentence, changed are to is</i></p> <p><i>7<sup>th</sup> paragraph, last sentence, changed Manager to organization.</i></p>	Title correction does not affect requirement	Change made in response to customer comment		X
1.3 Requirements and Structure		<p><i>2<sup>nd</sup> paragraph, 2<sup>nd</sup> bullet, changed "Process" to "Program".</i></p>	Document title correction does not affect requirement	Change made to correct title		X
Table 1-1		<p><i>Table title, deleted text " , Rev 5b".</i></p> <p><i>3<sup>rd</sup> line in Table, 2<sup>nd</sup> column, changed to read as follows:</i></p> <p>Sections 1 and 2</p>	Change does not affect requirement	Clarifies and corrects table information		X
1.3.1 Classification of Items		<p><i>1<sup>st</sup> paragraph, 1<sup>st</sup> sentence, added acronym "(ITS)" after "Important to Safety".</i></p> <p><i>In the 2<sup>nd</sup> to the last paragraph in the section, 1<sup>st</sup> sentence, delete "TWRS-P".</i></p>	Change does not affect requirement	Change made to clarify the term "ITS"		X
1.3.5 Organization		<p><i>1<sup>st</sup> paragraph, first sentence, changed "are" to "is".</i></p>	Change does not affect requirement	Grammar change		X

**RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF  
THE QUALITY ASSURANCE PLAN**

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
Figure 1-3		Replaced Figure 1-3 with new figure, "Overall Management Structure and Organization".	Change does not affect requirement	Reflects the new contractor's organization		X
1.4 Responsibilities		Deleted section titled "The Senior Vice President (TWTID)". Added the following bullets at the beginning of the bulleted section below "The Project Manager" section:	Change does not affect requirement	Areas of responsibility need clarification		X
		<ul style="list-style-type: none"> <li>Safety</li> <li>Overall implementation of the QAP</li> </ul> Deleted 5 <sup>th</sup> bullet: <ul style="list-style-type: none"> <li>Safety and overall implementation of the QAP</li> </ul> 8 <sup>th</sup> bullet, revise to read: <ul style="list-style-type: none"> <li>All aspects of safety and environmental compliance, quality, and operations</li> </ul> 1 <sup>st</sup> bullet, page 15 revise to read: <ul style="list-style-type: none"> <li><u>Assigns the Chair and Deputy Chair positions for Project Management Integrated Process/Product Team</u></li> </ul> Added the following bullets at the end of the bulleted section below "The Project Manager" section: <ul style="list-style-type: none"> <li>Establishing and maintaining internal interface controls for the project</li> <li>Ensuring the adequacy of the arrangements implemented by the project team members regarding the design and supporting activities</li> </ul> Deleted the title and section "The Senior Vice President (TWTID)". Deleted the title "The Design Manager", first sentence and first bullet. The remaining two bullets are placed under the bulleted section below "The Engineering Manager" section. Under "The WTP QA Manager" section, last bullet at the end of the section, revised to read as follows: <ul style="list-style-type: none"> <li>Identifying QA requirements and maintaining the program matrices.</li> </ul> Deleted the title "The Administration Manager" and first sentence, and added the bullets to the bulleted section below "The Business/Project Controls Manager" section. Under "Operations Manager", add "Operations" before "organization." Add 3 <sup>rd</sup> bullet to read: <ul style="list-style-type: none"> <li><u>Research and Technology (R&amp;T) activities</u></li> </ul>	Change does not affect requirement	Align the QAP with the BNI contract scope		X
1.5 Management Processes		1 <sup>st</sup> paragraph, 2 <sup>nd</sup> sentence, revised to read: BNI provides the Project management oversight and integration of engineering, procurement, and construction, regulatory and nuclear safety management, operation management, and interface with DOE and regulatory agencies.	Change does not affect requirement	Reflects new contractor name		X

**RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF  
THE QUALITY ASSURANCE PLAN**

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
1.6 Program Reviews		<i>1<sup>st</sup> paragraph, 1<sup>st</sup> sentence, changed to read:</i> The Project Manager and the WTP QA Manager shall perform an annual review of the Project QAP, project quality policies, and implementing project procedures for conformance with applicable regulatory and quality requirements.	Change does not affect requirement	Clarifies the assignment of responsibility for this requirement		X
2 Personnel and Qualification 2.3 Responsibilities		<i>“All Managers” section, first line of text, changed to read:</i> Are responsible for: <i>“The Project Manager” section, first line of text, changed to read:</i> Is responsible for: <del><i>“Delete title and section “The Senior Vice President (TWTID)”.”</i></del> <i>Delete title and section “The Design Manager”.</i>	Does not affect requirement	Change reflects new title and assignment of existing responsibilities		X
3 Quality Improvement 3.2 Requirements 3.2.1 Control of Nonconforming Items, Services, and Processes		<i>6<sup>th</sup> paragraph, 3<sup>rd</sup> sentence, changed to read:</i> The follow-up verification of the effectiveness of corrective actions is performed by WTP <del>Quality Assurance</del> QA Manager through inspection, surveillance, assessment, and audit. <i>7<sup>th</sup> paragraph, 5<sup>th</sup> sentence, revised to read:</i> The meeting is part of the Project Management Monthly Status Meeting attended by the Project Manager, the senior staff or designees, including the WTP QA Manager. <del><i>10<sup>th</sup> paragraph, last sentence, changed the word “should” to “shall”.</i></del>	Change does not affect requirement	Change made to clarify assignment of responsibility for this workscope		X
3.3 Responsibilities		<i>Delete “The Design Manager” section.</i> <del><i>Under “Operations Manager” section, add bullet:</i></del> <del><i>• Process technology</i></del> <i>In “The WTP QA Manager” section, 2<sup>nd</sup> bullet, delete the second word “for”.</i>	Change does not affect requirement	Change made to clarify responsibility		X
4 Documents and Records 4.2.2 Records		<i>1<sup>st</sup> paragraph, deleted last sentence:</i> The transfer of the facility operating records and other documentation shall be described in the Deactivation Plan.	Change does not affect requirement	Align the QAP with the BNI contract scope		X
4.2.3 Storage and Maintenance		<i>1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence, revised to read:</i> A Records Inventory and Disposition Schedule system shall be used to set forth and describe mandatory disposition for disposal, or transfer to storage or the client after specified retention periods in the office.	Change does not affect requirement	Align the QAP with the BNI contract scope		X
4.3 Responsibilities		<i>Deleted “The Senior Vice President (TWTID)” section.</i> <i>In “The Business/Project Controls Manager” section, changed “Are” to “Is” in the first line of text.</i>	Change does not affect requirement	Change made to clarify responsibility		X
5 Work Processes 5.2 <del>ResponsibilitiesReq uirements</del>		<i>3<sup>rd</sup> paragraph, 1<sup>st</sup> bullet, revised to read:</i> <ul style="list-style-type: none"> <li>Design procurement, construction, commission, start -up, and operations</li> </ul>	Change does not affect requirement	Align the QAP with the BNI contract scope		X

### RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF THE QUALITY ASSURANCE PLAN

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
5.3.7 Sample Control		4 <sup>th</sup> sentence, deleted the words “the Quality Assurance Program Description and”.	Change does not affect requirement	This document reiterated the QAP and QA Provisions documents		X
5.4 Responsibilities		<p>Deleted “The Senior Vice President (TWTID)” section.</p> <p>Deleted “The Design Manager” title, 1<sup>st</sup> sentence, 1<sup>st</sup> three bullets, and 6<sup>th</sup> bullet. Moved 4<sup>th</sup>, 5<sup>th</sup>, and 7<sup>th</sup> bullets below the bulleted section of “The Engineering Manager” section.</p> <p>Under “The Operations Manager” section, deleted 4<sup>th</sup> bullet, and added the following bullet to the end of the section:</p> <ul style="list-style-type: none"> <li>Is the Chair of the Project Safety Committee</li> </ul> <p><u>Add section “The Deputy Project Manager” and following text:</u></p> <p><u>Is responsible for:</u></p> <ul style="list-style-type: none"> <li><u>Ensuring that the WTP is designed, constructed, tested, commissioned, operated, and maintained in a safe, reliable, and efficient manner in accordance with policies and all applicable laws, regulations, authorization bases, and technical requirements</u></li> <li><u>Integrating nuclear and industrial safety, quality, and environmental protection into all work</u></li> <li><u>Managing the design transition, facility and process design, construction, acceptance testing, and commissioning</u></li> <li><u>Integrating the Area Project Managers and functional managers</u></li> <li><u>Creating an atmosphere in the workplace where reporting and resolution of conditions adverse to quality is encouraged at all levels</u></li> <li><u>Stopping activities within his area of responsibility, which are not accomplished in compliance with applicable authorization bases and/or regulatory requirements</u></li> <li><u>Giving full support to the Quality Assurance program described herein, thereby assuring that all work performed under their cognizance will conform to and support the requirements of the Manual</u></li> </ul> <p><u>Delete bullet:</u></p> <ul style="list-style-type: none"> <li><u>Is the Chair of Project Safety Committee</u></li> </ul>	<p>Change does not affect requirement</p> <p>Change does not affect requirement</p>	<p>Change made to clarify responsibility</p> <p>Align the QAP with the BNI contract scope</p>		<p>X</p> <p>X</p>
6 Design 6.2.2 Design Process		<p>3<sup>rd</sup> paragraph, 1<sup>st</sup> sentence, change “design” to “engineering”.</p> <p>3<sup>rd</sup> paragraph, 2<sup>nd</sup> sentence, changed to read:</p> <p>These procedures shall be prepared by the engineering organization.</p>	Change does not affect requirement	Change made to clarify responsibility		X

### RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF THE QUALITY ASSURANCE PLAN

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
6.3 Responsibilities		<p><i>Deleted "The Senior Vice President (TWTID)" section.</i></p> <p><i>Deleted "The Design Manager" title, 1<sup>st</sup> sentence, <del>1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, and 10<sup>th</sup> bullets</del><del>dashes</del>. <i>Changed all dashes to bullets. Moved all other bullets</i><del>dashes</del> below the bulleted section of "The Engineering Manager" section.</i></p> <p><i>Under 9<sup>th</sup> <del>bullet</del>dash, delete "leads" and insert "supervisors".</i></p> <p><i>Under "The Area Project Managers" section, <del>1<sup>st</sup> bullet, revised to read:</del></i></p> <ul style="list-style-type: none"> <li><i>Preparation and updates of the applicable documents identified in Appendix B, "Application of Quality Assurance Program Requirements for QL 1, QL 2, QL 3, and commercial grade Structures, Systems, and Components"</i></li> </ul> <p><i>delete the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> bullets.</i></p>	Change does not affect requirement	Change made to clarify responsibility		X
7 Procurement 7.2 Requirements		<p><i>2<sup>nd</sup> paragraph, revised to read:</i></p> <p><i>Surveillance and audits of suppliers and subcontractors for IHLW affecting SSCs, items, and services are performed by the WTP QA Manager through the following:</i></p>	Change does not affect requirement	Reflects new contractor title for the head of QA		X
7.2.1 Technical Requirements		<p><i>2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence, after the bulleted section, revised to read:</i></p> <p><i>All procurement documents for designated IHLW affecting SSCs and related services shall be reviewed by the QA staff before issuance for procurement.</i></p> <p><i>3<sup>rd</sup> paragraph, after the bulleted section, revised to read:</i></p> <p><i>Suppliers of IHLW affecting SSCs and related items and services shall be evaluated to determine whether the supplier has the requisite QAP to support the procurement. This evaluation may be performed by reviewing the suppliers' quality documentation, facilities, history, and/or by using reports of other recognized industry organizations. Suppliers of IHLW affecting SSCs and related items and services shall be re-audited at least every 3 years to confirm their continuing capabilities.</i></p>	Change does not affect requirement	Change is less prescriptive than previous wording		X
7.4 Responsibilities		<p><i>Deleted "The Senior Vice President (TWTID)" section.</i></p>	Change does not affect requirement	Clarifies responsibility		X
8 Inspection and Acceptance Testing 8.2 Requirements		<p><i>2<sup>nd</sup> paragraph, reference in parentheses at end of the paragraph, revised to read:</i></p> <p><i>(DOE-RL-96-0006, Section 4.3.5.1).</i></p>	Change does not affect requirement	Corrected document reference		X
8.2.2.2 Test Procedures		<p><i>1<sup>st</sup> paragraph, last sentence, changed "Senior Vice President" to "Engineering Manager".</i></p>	Change does not affect requirement	Reflects new title		X
9 Management Assessment 9.4 Responsibilities		<p><i>Under "The Project Manager" section, 1<sup>st</sup> bullet, revised to read:</i></p> <ul style="list-style-type: none"> <li><i>Planning and completion of an annual review of the overall effectiveness of the management assessments for the entire Project</i></li> </ul> <p><i>Deleted "The Senior Vice President (TWTID)" section.</i></p>	Change does not affect requirement	Clarified qualification of personnel		X

**RATIONALE FOR PROPOSED CHANGES TO REVISION 7 OF  
THE QUALITY ASSURANCE PLAN**

Rev. 7 PAGE	Rev. 7 LINE(S)	PROPOSED CHANGE	JUSTIFICATION		*AFFECTS AB	
			Continues to meet 10 CFR 830.120	Rationale	YES	NO
10 Independent Assessment 10.3 Responsibilities		<i>Under “The Project Manager” section, 1<sup>st</sup> bullet, delete the semi-colon after “reports”.</i> <i>Deleted “The Senior Vice President (TWTID)” section.</i>	Change does not affect requirement	Clarified qualification of personnel		X
Appendix A Quality Assurance Program Implementation Matrix		<i>Deleted last two columns in table, titled “Deactivation” and “Project Close-out”.</i>	Change does not affect requirement	Align the QAP with the BNI contract scope		X